



INSTRUMENT APPROACH PROCEDURE CHARTS

TIFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude, and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned another DP or radar vector by ATC, this procedure may be flown to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: FAR 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military takeoff minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS **APPLE VALLEY, CA**

APPLE VALLEY

TAKE-OFF MINIMUMS: Rwy 36, 300-1 or std. with a min, climb gradient of 340' per NM until 5800.

DEPARTURE PROCEDURE: Use EXCON ONE RNAV DEPARTURE. Rwy 8,18,26, NA.

AVALON, CA

CATALINA

DEPARTURE PROCEDURE: Rwys 4,22, climb straight ahead to 2300 then proceed on course.

BAKERSFIELD.CA

BAKERSFIELD MUNI

TAKE-OFF MINIMUMS: Rwy 16, 300-1 or std. with a min. climb of 230' per NM to 500. **Rwy 34**, 400-2 or std. with a min. climb of 400' per NM to 800. DEPARTURE PROCEDURE: Rwy 16, turn right.

Rwy 34, turn left. All aircraft climb direct EHF VORTAC. Aircraft departing EHF R-120 CW R-360, climb on course, all others continue climb in EHF VORTAC holding pattern (NW, right turns, 144° inbound) to cross EHF at or above 4000, before proceeding on course.

NOTE: 120' powerlines on centerline, 2551' from departure end of runway 16.

NAME TAKE-OFF MINIMUMS BAKERSFIELD, CA (CON'T)

MEADOWS FIELD

DEPARTURE PROCEDURE: All aircraft climbing right turn direct EHF VORTAC. Aircraft departing EHF R-180 CW R-350 climb on course. All others continue climb northwestbound via EHF R-324, then climbing left turn to cross EHF VORTAC at or above: EHF R-110 CWR-179 3000; EHF R-351 CW R-109 4000.

BIG BEAR, CA

BIG BEAR CITY

TAKE-OFF MINIMUMS: **Rwy 8**, 1200-2 or std. with a min. climb of 282' per NM to 8000. **Rwy 26**, NA. DEPARTURE PROCEDURE: Use OKACO RNAV DEPARTURE. Rwy 26, NA.

BLYTHE, CA

BLYTHE

TAKE-OFF MINIMUMS: Rwy 26, 700-2 or std. with a min. climb of 330' per NM to 1100. DEPARTURE PROCEDURE: Rwys 8,17,35, turn right.
Rwy 26, turn left, climb to 1500 via heading 180° and

BLH R-120, then climbing left turn direct BLH VORTAC, MCA 2000.











BORREGO SPRINGS, CA

BORREGO VALLEY

TAKE-OFF MINIMUMS: Rwy 7, 1100-2 or std. with a min. climb of 290' per NM to 1700. **Rwy 25,** NA. DEPARTURE PROCEDURE: **Rwy 7**, use ERNUF RNAV DEPARTURE. Rwy 25, NA.

BRAWLEY, CA

BRAWLEY MUNI

TAKE-OFF MINIMUMS: Rwy 26, NA.
DEPARTURE PROCEDURE: Rwy 8, turn right. Climb to 3000 via IPLR-009 to IPL VORTAC, then climb on

BURBANK, CA

BOB HOPE

TAKE-OFF MINIMUMS: Rwy 8, Cats A, B 1500-2 or std. with 480' per NM to 2400. Cats C,D 2300-2 or std. with 650' per NM to 3200. **Rwy 15**, 1300-2 or std. with 290' per NM to 2100. Rwy 33, 1100-2 or std. with 390' per

DEPARTURE PROCEDURE: Rwy 26, climb direct VNY VOR/DME. Rwys 8,15, climbing right turn. Rwy 33, climbing left turn direct to VNY VOR/DME. All aircraft continue climb to MEA. North/westbound via V326 to GINNA Int, south/eastbound via V186 to DARTS Int.

CALIPATRIA, CA

CLIFF HATFIELD MEMORIAL

DEPARTURE PROCEDURE: Rwy 8, climb runway heading to 400', then climbing right turn to 3000 via heading 200° and IPL R-336 to IPL VORTAC. **Rwy 26**, climb runway heading to 400', then climbing left turn to 3000 via IPLR-336 to IPL VORTAC.

CAMARILLO, CA

CAMARILLO

TAKE-OFF MINIMUMS: Rwy 8, 1100-2 or std. with a min. climb of 250' per NM to 1500.

DEPARTURE PROCEDURE: Rwy 8, climb to 2500 via CMA R-061. Rwy 26, climbing right turn to 2500 via CMA R-265. All aircraft climbing left turn direct CMA VOR/DME. Continue climb on course to assigned

CAMP PENDLETON MCAS (MUNN FIELD) (KNFG)

OCEANSIDE, CA

Rwv 3: Diverse departure not authorized. Rwy 21: Obstacle identification surface begins 35' above departure end of rwy. Diverse departure authorized between 199° to 226° CW with a minimum obstacle climb rate of 424/NM to 700. 500-1 ceiling and vis authorized in lieu of minimum climb rate

CARLSBAD, CA

MCCLELLAN-PALOMAR

TAKE-OFF MINIMUMS: Rwy 6, 1400-2 or std. with a min. climb of 260' per NM to 2100. DEPARTURE PROCEDURE: **Rwy 6**, climbing left turn

to 3100 heading 245°. **Rwy 24**, climb runway heading to 2800. All aircraft climb on course.

CHINO, CA

CHINO

TAKE-OFF MINIMUMS: Rwy 3, std. with a min. climb of 270' per NM to 4800. Rwys 8L/R, std. with a min. climb of 270' per NM to 4800. $\boldsymbol{Rwy\,21}$, Cat A/B std. with a min climb of of 290' per NM to 4800, Cat C/D std. with a min. climb of 400' per NM 4800. **Rwys 26L/R**, Cat A/B std. with a min. climb of 270' per NM to 4800, Cat C/D std.

with a min. climb of 410' per NM to 4800.
DEPARTURE PROCEDURE: Rwys 3, 8L/R, climbing right turn direct PDZ VORTAC. Rwys 21,26L/R, climbing left turn direct PDZ VORTAC. All aircraft climb in PDZ VORTAC holding pattern (Hold E, right turns, 258° inbound) to the appropriate MEA

NOTE: 108' AGL trees 1200' from departure end of runway 3, 600' left of centerline.

CORONA, CA

CORONA MUNI

TAKE-OFF MINIMUMS: Rwy 7, 1000-2 or std. with a min. climb of 310' per NM to 1700. Rwy 25, 600-2 or std. with a min. climb of 280' per NM to 1200.

DEPARTURE PROCEDURE: Rwy7, climbing left turn. Rwy 25, climbing right turn. All aircraft continue climb direct to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ VORTAC holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-141 CW R-230 4000, R-281 CWR-0906700.

DAGGETT, CA

BARSTOW-DAGGETT

TAKE-OFF MINIMUMS: Rwy 22, 1800-2 or std. with a min. climb of 380' per NM to 4000. Rwy 26, CAT C,D 2700-2 or std. with a min. climb of 380' per NM to 5000. DEPARTURE PROCEDURE: Rwys 4, 8, climb direct DAG VORTAC. Rwys 22, 26, climbing right turn heading 090° and DAG R-223 to DAG VORTAC, then climb in DAG holding pattern (NE, right turns, 223' inbound) to 7500 before departing on course.

DELANO, CA

DELANO MUNI

TAKE-OFF MINIMUMS: Rwy 32, 400-1 or std. with a min. climb rate of 390' per NM to 400. DEPARTURE PROCEDURE: All runways climb

outbound via EHF R-324 to 2000, continue climb direct TTE VOR/DME; or, aircraft proceeding via V23 continue climb on course

NOTE: 65' AGL tree 600' from departure end of runway, 500' left of centerline runway 14.











EDWARDS AF AUX NORTH BASE (9L2)

EDWARDS, CA

Rwy 6-24, climb on course, cross 15 NM from ARP at orabove 4500.

EDWARDS AFB (KEDW)

EDWARDS, CA

Rwy 4, Radar Required, Climb 340/NM to 5500, track inbound on EDW R-223 to EDW VORTAC, then out EDW R-043. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. Rwy 22, Radar and DME Required. CAT ABC track outbound EDW R-223. At 12 DME turn right heading 020, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passing 4500 or climb on course, cross 15 NM from ARP at or above 4500. CAT DE track outbound EDW R-223. At 12 DME turn right, intercept EDW R-247 to EDW VORTAC. Climb as instructed, expect radar vectors after passir 4500 or climb on course, cross 15 NM from ARP at orabove 4500.

EL CENTRO NAF (KNJK)

EL CENTRO, CA

Rwy 8, 12: Aircraft assigned headings 270° CW through 300°-Standard with minimum climb of 220/NM to 8200. Rwy 26: Aircraft assigned headings 250° CW through 320°-Standard with minimum climb of 230/NM to 8200. Rwy 30: Aircraft assigned headings 250° CW through 320°-Standard with minimum climb of 250/NM to 6700. Do not over-fly the US-Mexico border. Obstructions south of the border have not been evaluated for required

EL MONTE, CA

ELMONTE

TAKE-OFF MINIMUMS: **Rwy 1**, 600-1 or std. with a min. climb of 280' per NM to 1000. **Rwy 19**, 1200-2 or std. with min. climb of 230' per NM to 1900.

DEPARTURE PROCEDURE: Rwy 1, climbing right turn. **Rwy 19**, climb runway heading to 800 then climbing left turn. **All aircraft** intercept PDZ R-278 to PDZ VORTAC. Aircraft departing PDZ R-091 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700.

FALLBROOK, CA

FALLBROOK COMMUNITY AIRPARK

TAKE-OFF MINIMUMS: **Rwy 36**, CAT A,B, 700-2 or std. with a min. climb of 340' per NM to 5000.

DEPARTURE PROCEDURE: Rwy 18, climb runway heading to 1200, then climbing left turn via heading 160° to join V208-458. Aircraft westbound proceed on course. Aircraft eastbound V208-458 proceed to VISTA Int and climb in holding pattern (E, left turns, 263° inbound) to 5000 before proceeding on course. **Rwy 36**, climb runway heading to 1500, then climbing right turn to intercept OCN VORTAC R-027 to TANNR Int before proceeding on course.

FULLERTON, CA

FULLERTON MUNI

TAKE-OFF MINIMUMS: Rwy 6, std. with a min. climb of 230' per NM to 900, or 1100-21/2 for climb in visual conditions. Rwy 24, std. with a min. climb of 320' per NM to 2300, or 1100-21/2 for climb in visual conditions

DEPARTURE PROCEDURE: Rwy 6, climbing right turn to 2300 direct SLI VORTAC, or for climb in visual conditions: cross Fullerton Airport southwest bound at or above 1100, then climb to 2300 via SLIR-020 to SLI VORTAC. Rwy 24, climbing left turn to 2300 direct SLI VORTAC, or for climb in visual conditions: cross Fullerton Airport southwest bound at or above 1100, then climb to 2300 via SLI R-020 to SLI VORTAC

NOTE: Rwy 6, obstruction light 109' from departure end of runway, 117' left of centerline, 22' AGL/118' MSL. Train 122' from departure end of runway, 106' left of centerline, 23' AGL/121' MSL. Multiple poles 58' to 1003' from threshold centerline to 373' right of centerline, 39' AGL/135' MSL. Hopper on building 977 from departure end of runway, 468' left of centerline, 36' AGL/132' MSL. Light pole 1247' from threshold, 143' left of centerline, 35' AGL/131' MSL. Tree 1463' from departure end of runway, 35' left of centerline, 72' AGL/ 168' MSL. Obstruction light 1620' from departure end of runway, 318' right of centerline, 50' AGL/146' MSL. Pole 2234' from departure end of runway, 754' left of centerline, 78' AGL/174' MSL. Pole 3597' from departure end of runway, 793' left of centerline, 102 AGL/198' MSL. Building 3208' from departure end of runway, 820' right of centerline, 112' AGL/217' MSL. Tower 1 NM from departure end of runway, 1937' left of centerline, 94' AGL/267' MSL. Pole 1.6 NM from departure end of runway, 1.5 NM left of centerline, 90' AGL/575' MSL. Tower 1.1 NM from departure end of runway, 1.7 NM left of centerline, 130' AGL/729' MSL Tower 2 NM northwest of departure end of runway, 760 AGL/820' MSL. Rwy 24, road 82' from departure end of runway, on centerline, 15' AGL/99' MSL. Light 85' from departure end of runway, 260' right of centerline, 25' AGL/110' MSL. Light 217' from departure end of runway, 320' left of centerline, 104' AGL/122' MSL. Antenna on building 272' from departure end of runway, 278' left of centerline, 31' AGL/116' MSL. Trees 253' from departure end of runway, 228' right of centerline, 57 AGL/142' MSL. Obstruction light 400' from departure end of runway, on centerline, 18' AGL/103' MSL. Trees 1336' to 2492' from departure end of runway, 160' left of centerline to 419' right of centerline, 70' AGL/155' MSL. Tower 1.3 NM from departure end of runway, 485' right of centerline, 759' AGL/820' MSL.

HAWTHORNE, CA

JACK NORTHROP FIELD/HAWTHORNE MUNI TAKE-OFF MINIMUMS: **Rwy 7**, 300-2 or std. with a min. climb rate of 250' per NM to 400.

DEPARTURE PROCEDURE: Rwy7, turn right, climb via heading 240°. Rwy 25, turn left, climb via heading 210°. All runways climb to 3000 via LAX R-170 to LIMBO Int.









HEMET, CA

HEMET-RYAN

TAKE-OFF MINIMUMS: Rwys 4,22, N/A-restricted to glider operations. Rwy 5, std. with a min. climb of 526 per NM to 5200, or 1400-21/2 for climb in visual conditions. Rwy 23, std. with a min. climb of 414' per NM to 3200, or 1400-21/2 for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 5**, climbing left turn via HDF VOR R-084 to HDF VOR, thence...or climb in visual conditions to cross Hemet-Ryan Airport westbound at or above 2900, then climb via HDF VOR R-093 to HDF VOR, thence... **Rwy 23**, climbing right turn via HDF VOR R-108 to HDF VOR, thence...or climb in visual conditions to cross Hemet-Ryan Airport westbound at or above 2900, then climb via HDF VOR

R-093 to HDF VOR, thence...
....climb in HDF VOR holding pattern, (SE, right turns. 315° inbound), to cross HDF VOR at or above MEA/ MCA for direction of flight.

NOTE: Rwy 5, road and vehicle 200' from departure end of runway, on centerline, 15' AGL/1534' MSL. Rwy 23, road and vehicle 394' from departure end of runway, 545' left of centerline, 15' AGL/1524' MSL, Tree 1.4 NM from departure end of runway, 2613' right of centerline, 100' AGL/1979'MSL

IMPERIAL, CA

IMPERIAL COUNTY

DEPARTURE PROCEDURE: Rwys 8, 32, turn right. Rwy 14, climb runway heading. Rwy 26, turn left. All aircraft climb direct IPL VORTAC.

IMPERIAL BEACH NOLF (REAM FIELD) (NRS)

IMPERIAL BEACH, CA Diverse departures not authorized.

INYOKERN, CA

INYOKERN

TAKE-OFF MINIMUMS: Rwys 2, 10, 15, 28, 33, NA. DEPARTURE PROCEDURE: Rwy 20, use LAKE HUGHES RNAV DEPARTURE.

LA VERNE, CA

BRACKETT FIELD

TAKE-OFF MINIMUMS: Rwys 8L,8R,26L,26R,300-1. DEPARTURE PROCEDURE: Rwys 8L,8R, climb runway heading to 1400, then climbing right turn heading 195°. Rwys 26L,26R, climb runway heading to 1400, then climbing left turn heading 130°. **All aircraft** intercept and climb via POM R-164 to PRADO Int. Aircraft departing PRADO Intheading 141° CW 290° climb on course. All others climb in PRADO holding pattern (N, right turns, 164° inbound) to depart PRADO Intatorabove: 291° CW 340°, 4500; 341° CW 050°, 6800; 051° CW 090°, 5200; 091° CW 140°, 4200.

LANCASTER, CA

GENERAL WILLIAM J. FOX AIRFIELD

DEPARTURE PROCEDURE: Climb southeastbound on R-299 to PMD VORTAC. Depart PMD at published MCA for direction of flight.

LOMPOC, CA

TAKE-OFF MINIMUMS: Rwy 7, 2900-2 or std. with a min. climb of 240' per NM to 1800.

DEPARTURE PROCEDURE: Rwv 7. turn right. Rwv 25. turn right heading 130°. All aircraft intercept and climb via GVO R-278 to GVO VORTAC. Aircraft departing GVO R-120 CW R-020 climb on course. All others climb in GVO holding pattern (NW, right turns, 127 inbound) to depart GVO VORTAC at or above 5000.

LONG BEACH, CA

LONG BEACH (DAUGHERTY FIELD)

TAKE-OFF MINIMUMS: Rwy16L, 300-1½ or std. with a min. climb of 284' per NM to 500. Rwy16R, 300-1 or std. with a min. climb of 471' per NM to 500. Rwys 34L, 34R, NA-Environmental and noise abatement

DEPARTURE PROCEDURE: Rwys 7L, 7R, climb via heading 076° to 800, turn right direct SLI VORTAC and proceed to PADDR INT via R-210. Rwy 12, climb via heading 121° to intercept and proceed via SLIR-210 to PADDR Int. **Rwys 16L,16R**, climb via heading 166° to 800, turn right heading 180° to intercept and proceed via SLIR-210 to PADDR Int. Rwys 25L, 25R, climb via heading 256° to 800, turn left heading 200° to intercept and proceed via LAX R-145 to PADDR Int. **Rwy 30**, Climb via heading 301° to 800, turn left via heading 200° to intercept and proceed via LAX R-145 to PADDR Int.

NOTES: **Rwy7R**, antenna on bldg 1473' from departure end of runway, 822' right of centerline, undefined AGL/ 115' MSL. Rwy 16L, tower 7536' from departure end of runway, 414' right of centerline, 165 AGL/335 MSL. Obstruction light LTD WSK on building 1443' from departure end of runway, 806 left of centerline, undefined AGL/159 MSL. Antenna 7587' from departure end of runway, 177' right of centerline, undefined AGL/305 MSL. DAVIT on building 2393' from departure end of runway, 749' right of centerline, undefined AGL/152 MSL. Obstruction light building 1233' from departure end of runway, 416 left of centerline, undefined AGL/114 MSL. Building 628' from departure end of runway, 437 left of centerline, undefined AGL/95 MSL. Tree 301' from departure end of runway, 397' right of centerline, undefined AGL/78 MSL. **Rwy 16R**, Chimney on building 4661' from departure end of runway, 1554' right of centerline, undefined AGL/353 MSL, tree 4958' from departure end of runway, 917' right of centerline, undefined AGL/293 MSL, tower 8017' from departure end of runway, 1913' left of cenrerline, 165 AGL/335 MSL, pole 5658' from departure end of runway, 617' right of centerline, undefined AGL/248 MSL, antenna 8069' from departure end of runway, 2150 left of centerline, undefined AGL/305 MSL. Rwy 25L, Rod on obstruction light hanger 1149' from departure end of runway, 793' right of centerline, undefined AGL/169 MSL, obstruction light tower 2494' from depature end of runway, 504' left of centerline undefined AGL/152 MSL, tree 1548' from $departure\ end\ of\ runway, 504'\ left\ of\ centerline, undefined$ AGL/115MSL



TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



LOS ALAMITOS AAF (KSLI)

LOS ALAMITOS, CA

. . . . Rwy 22L/R, 300-1* Or standard with minimum climb of 230/NM to 400. Rwy 4L/R climbing right turn; Rwy 22L/R climbing left turn. All aircraft climb direct SLI VORTAC. Aircraft departing SLI VORTAC R-040 CW 345 climb on course. All others continue climb via the SLI $R-171\,south bound \,then\,climbing\,right \,turn\,direct\,SLI$ VORTAC to cross at or above 4600'.

LOS ANGELES, CA

LOS ANGELES INTL

TAKE-OFF MINIMUMS: **Rwys 25L,25R**, turbojet std, non-turbojet std. with a min. climb of 360' per NM to 600. DEPARTURE PROCEDURE: Rwys 6L, 6R, 7L, 7R, climb to 2000 heading 070°, then climbing right turn. Rwys 24L, 24R, climb to 3000 heading 250°, then climbing left turn. Rwys 25L, 25R, turbojet climb to 3000 heading 250°, then climbing left turn; non-turbojet climb via heading 250°, at the SMO 154° radial turn left heading 200°. Then all aircraft climb direct SLI VORTAC, then climb on course.

WHITEMAN

TAKE-OFF MINIMUMS: **Rwys 12, 30,** 2900-2 or std. with a min. climb of 350' per NM to 4300. DEPARTURE PROCEDURE: Rwy 12, climbing right turn direct VNY VOR/DME. Rwy 30, climbing left turn heading 260°. All aircraft climb to 4500 via VNY R-325. then climbing left turn direct VNY VOR/DME.

MARCH ARB (KRIV)

RIVERSIDE, CA

04134

Rwy 32 standard with minimum climb of 280/NM to 6000 Diverse departure not authorized.

TAKE-OFF OBSTACLES: Rwy 14, aircraft at departure end of rwy, 265' left of centerline, 30' AGL/1514' MSL. Rwy 32, aircraft 30' beyond departure end of rwy, 272' right of centerline, 30' AGL/1564' MSL.

MIRAMAR MCAS (KNKX)

SAN DIEGO, CA

Diverse departures not authorized. Rwy 6L/R 340° through 140° CW-Civil standard with minimum climb of 315 to 7600; Military, standard with minimum climb of 290 to 7000. Rwy 24L/R 340° through 140° CW-Civil, standard with minimum climb of 305 to 8000; Military, standard with minimum climb of 280 to 7000.

MOJAVE, CA

TAKE-OFF MINIMUMS: **Rwys** 4,8,12, NA. **Rwy 22,** 900-5 or std. with a min. climb of 250' per NM to 4000. Rwy 26, 1500-5 or std. with a min. climb of 370' per NM to 4600. **Rwy 30**, Cat A/B 1700-5 or std. with a min. climb of 380' per NM to 4800. Cat C: 3200-7 or std. with a min. climb of 480' per NM to 6400. DEPARTURE PROCEDURE: **Rwy 4,8,12,** NA.

Rwy 22, climbing left turn heading to 9000 (or assigned altitude) heading 190° and LHS R-030 to LHS VORTAC. Rwy 26, climbing left turn to 9000 (or assigned altitude) heading 170° and LHS R-030 to LHS VORTAC. Rwy 30, climbing left turn to 9000 (or assigned altitude) heading 200° and PMD R-323. Then turn right via LHS R-030 to LHS VORTAC.

MURRIETA/TEMECULA, CA

FRENCH VALLEY

TAKE-OFF MINIMUMS: Rwy 18, NA. Rwy 36, 700-2 or std. with a min. climb of 340' per NM to 2200. DEPARTURE PROCEDURE: Rwy 36, climb runway

heading to 2200, then climbing left turn via HDF R-145 to HDF VOR. Aircraft departing HDF VOR 065° CW 352° climb on course. Aircraft departing northeastbound, climb in HDF holding pattern, (SE, right turns, 315° inbound) to depart HDF VOR at or above: 353° CW 054°, 6800; 055° CW 064°, 5800; before proceeding on course

NEEDLES, CA

NEEDLES

DEPARTURE PROCEDURE: Rwys 2, 29, turn right. Rwy 20, turn left. All aircraft climb direct EED VORTAC, then continue climb on curse. Departures on V12, J6, and J8 cross EED VORTAC at or above 2600.

NORTH ISLAND NAS (HALSEY FIELD) (KNZY)

SAN DIEGO, CA

Diverse departure not authorized.

Rwy 29 600-2* *Or standard with minimum climb of 500 ft/NM to 800 (civil); 430 ft/NM to 700 (military). Climb heading 289° to 800 (civil) or 700 (military) at NZY 1.6 DME climbing left turn to 2000 via heading 190° intercept NZY R-235 to PGY R-266, then radar vectors to filed route. TKOF Obstacles: 534 ft AMSL radio twr, 1.38 NM from DER. 426 ft AMSL terrain, 1.22 NM from DER.

OCEANSIDE, CA

OCEANSIDE MUNI

TAKE-OFF MINIMUMS: Rwy 6, 400-1 or std. with a min. climb of 320' per NM to 500. **Rwy 24**, 300-1 or std. with a min. climb of 670' per NM to 300.

DEPARTURE PROCEDURE: Rwy 6, climbing right turn. Rwy 24, climbing left turn. All aircraft climb via heading 235° to 1500, then climbing right turn direct OCN VORTAC.







ONTARIO, CA

ONTARIO INTL

TAKE-OFF MINIMUMS: Rwys 8L,8R, CAT C, D 1000-2 or std. with a min. climb of 220' per NM to 2200 DEPARTURE PROCEDURE: Rwys 8L,8R, climbing right turn. Rwys 26L,26R, climbing left turn. All aircraft climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CWR-230, 4000.

OXNARD, CA

OXNARD

TAKE-OFF MINIMUMS: Rwy 7, 2100-5 or std. with a min. climb of 290' per NM to 2600.

DEPARTURE PROCEDURE: **Rwv 7.** climbing left turn.

Rwy 25, climb runway heading. All aircraft continue climb to 6000 (or assigned altitude) via CMA R-249 to SQUID Int. Aircraft departing SQUID Int 040° CW 300° climb on course. All others continue climb in SQUID holding pattern (Hold W, right turns, 069° inbound) to

cross SQUID INT at or above 2300.

NOTE: **Rwy 7**,59' AGL tree 527' from departure end of runway, 501' left of centerline.

PALM SPRINGS, CA

BERMUDA DUNES

TAKE-OFF MINIMUMS: **Rwy 28**, CATA, B 1200-2 or std. with a min. climb of 450' per NM to 1400. CAT C,D 2100-2 or std. with a min. climb of 490' per NM to 3400. DEPARTURE PROCEDURE: **Rwy 10**, climbing right turn heading 150°. **Rwy 28**, climbing left turn heading 090°. All aircraft continue climb via TRM R-304 to TRM VORTAC. Aircraft departing TRM R-095 CW R-165 climb on course. All others continue climb in TRM holding pattern (E, right turns, 289° inbound) to cross TRM VORTAC at or above: R-166 CW 290° 6500; 291° CW R-310, 4900; R-311 CW 094°, 3200.

JACQUELINE COCHRAN REGIONAL

TAKE-OFF MINIMUMS: Rwy 30, CAT C,D 3400-2 or std. with a min. climb of 410' per NM to 3700. Rwy 35, CAT A,B 400-2 or std. with a min. climb of 210' per NM to 400. CAT C,D 3400-2 or std. with a min. climb of 410 per NM to 3700.

DEPARTURE PROCEDURE: Rwys 12,17, climbing left turn. Rwys 30, 35, climbing right turn heading 150° Aircraft departing TRM R-101 CW R-139, climb on course. All others continue climb east-bound via the TRM R-109 then climbing right turn to cross TRM VORTAC at or above: R-304 CW R-100, 4000; R-140 CWR-199, 4700; R-200 CW R-303, 6600,

PALM SPRING, CA (CON'T)

PALM SPRINGS INTL

TAKE-OFF MINIMUMS: Rwys 13L,13R,500-2 or std. with a min. climb of 300' per NM to 1000. Rwys 31L,31R, CAT A/B std. with a min. climb of 320' per NM to 2000. CAT C/D std. with a min. climb of 380' per NM to 4500. DEPARTURE PROCEDURE: Rwys 13L,13R, turn left heading 090° to intercept TRM R-304 to TRM VORTAC. Rwys 31L, 31R, turn right direct PSP VORTAC, then via PSP R-124 and TRM R-304 to TRM VORTAC. All aircraft climb in TRM holding pattern (E, right turns, 289° inbound) until reaching MEA or MCA for route of flight.

PALMDALE, CA

PALMDALE PRODUCTION FLT/TEST INSTLN AF PLANT 42

TAKE-OFF MINIMUMS: Rwy 22, 1000-1 or std. with a min. climb of 260' per NM to 4200. DEPARTURE PROCEDURE: **Rwys 4, 7,** turn left.

Rwys 22, 25, turn right. Eastbound V12, J6 climb on course. All others climb on R-298 to FISCH Int. (northwestbound climb in holding pattern SE, left turns, 298° inbound. Depart at 8100), continue climb direct PMD VORTAC to depart at or above published MCA.

PASO ROBLES, CA

PASO ROBLES MUNI

DEPARTURE PROCEDURE: All departures maintain 250 kts or less until inbound to PRB. Rwy 1, climb to 3000 via heading 280° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB. Rwy 13, climb to 3000 via heading 160° to intercept PRB R-133 outbound. V25 southbound continue climb on course. All others climbing right turn to 4500 direct PRB. **Rwy 19**, climb to 3000 via heading 150° to intercept PRB R-179 outbound. V113 southbound continue climb on course. All others climbing left turn to 4500 direct PRB. Rwy 31, climb to 3000 via heading 340° to intercept PRB R-326 outbound. V248 northbound climb on course. All others climbing right turn to 4500 direct PRB.

POINT MUGU NAS (NAVAL BASE **VENTURA CO) (KNTD)**

OXNARD, CA

Diverse departure not authorized. Take-off minimums 600-2. Caution: Mountainous terrain East through North. Rwy 9 departures are not

Rwy 3-21: Obstacle ident surface begins 10' above departure end of runway.

Obstacles: 104' (MSL) tower from departure end of runway-Rwy 3: 211° 5481', Rwy 21: 056° 5896', Rwy 27: 126° 2077'. 86' (MSL) tower from departure end of runway: 128° 2010'.







RAMONA, CA

RAMONA

TAKE-OFF MINIMUMS: Rwy 9, CAT A, B 1100-2 or 700-1 with min. climb of 260' per NM to 2700. CAT C 2800-2 or 700-2 with a min climb of 360' per NM to 4600. Rwy 27, 800-2 or std. with a min. climb of 280' per NM to

DEPARTURE PROCEDURE: Rwy 9, turn left. Rwy 27 turn right. Climb to 5000 via OCNR-100 to intercept MZB R-007 to BONDO Int. Continue climb via V208/458 to at or above MEA

REDLANDS, CA

REDLANDS MUNI

TAKE-OFF MINIMUMS: Rwy 8, NA. Rwy 26, 1700-2 or std. with a min. climb of 300' per NM to 4000. DEPARTURE PROCEDURE: Climbing left turn direct PDZ VORTAC. Aircraft departing PDZ VORTAC R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue in PDZ VORTAC holding pattern (hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above, R-281 CW R-090, 7700; R-141 CW R-230, 4900.

RIALTO, CA

RIALTO MUNI-MIRO FIELD

TAKE-OFF MINIMUMS: Rwys 17, 35, NA DEPARTURE PROCEDURE: Rwy 6, climbing right turn. Rwy 24, climbing left turn. All aircraft climb via PDZ R-012 to PDZ VORTAC, Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CWR-230, 4000.

RIVERSIDE, CA

RIVERSIDE MUNI

TAKE-OFF MINIMUMS: Rwy 9, CAT A, B 1200-2 or std. with a min. climb of 210' per NM to 2300. CAT C,D $2100\mbox{-}2\mbox{ or std.}$ with a min. climb of 240' per NM to 3500. Rwy 16, NA. Rwy 27, CAT C,D 2400-2 or std. with a min. climb of 230' per NM to 3800. Rwy 34, CAT A,B 700-2 or std. with a min. climb of 400' per NM to 1600. CAT C,D 1600-2 or std. with a min. climb of 400' per NM to 2600.

DEPARTURE PROCEDURE: Rwy 9, climbing right turn. Rwy 34, climbing left turn. Rwy 27, climb heading 280° to 2000, then climbing left turn. **All aircraft** climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000; or Airway MEA.

SANBERNARDINO, CA

SAN BERNARDINO INTL

TAKE-OFF MINIMUMS: Rwy 6, CAT A, B 2100-2 or std. with a min. climb of 340' per NM to 3700. CAT C,D 3100-2 or std. with a min. climb of 480' per NM to 4600. DEPARTURE PROCEDURE: Rwy 6, climbing right turn. Rwy 24, climbing left turn. All aircraft climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (Hold NE, right turns, 210° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 7700; R-141 CW R-230, 4900.

SAN CLEMENTE ISLAND NALF (FREDERICK SHERMAN FLD) (NUC)

SAN CLEMENTE ISLAND, CA

Diverse departures not authorized between 090° to 160° clockwise bearing from ARP.

SAN DIEGO, CA

BROWN FIELD MUNI

TAKE-OFF MINIMUMS: Rwvs 8L.8R. CAT A.B 1900-2 or std. with a min. climb of 460' per NM to 2600. CAT C,D 3100-3 or std. with a min. climb of 520' per NM to 3900

DEPARTURE PROCEDURE: Rwys 8L,8R, climbing left turn. Rwys 26L,26R, climbing right turn. All aircraft climb heading 280° to intercept MZB R-160 northwestbound to MZB VORTAC.

MONTGOMERY FIELD

TAKE-OFF MINIMUMS: Rwy 5, 1500-2 or std. with a min. climb of 290' per NM to 1700.

DEPARTURE PROCEDURE: Rwys 5, 10L/R, climbing right turn. Rwys 28L/R, climbing left turn. All aircraft climb direct to MZB VORTAC. Aircraft departing MZB R-090 CW R-360 climb on course. All others climb in MZB holding pattern (W, right turns, 075° inbound) to cross MZB VORTAC at or above 1800.







SAN DIEGO, CA (CON'T)

SAN DIEGO INTL

TAKE-OFF MINIMUMS: Rwy 9, CAT A, B 400-1 or 300-1 with a min. climb of 610' per NM to 600. CAT C,D 300-1 with a min. climb of 610' per NM to 2300. Rwy 27, 300-11/2 or std. with a min. climb of 317' per NM to 400. DEPARTURE PROCEDURE: Rwy 9, climb runway heading to 600, then climbing left turn direct MZB VORTAC. Rwy 27, climb runway heading to 900, then climbing right turn direct MZB VORTAC. Aircraft

departing MZB VORTAC R-180 CW R-360 climb on course. All others climb in MZB VORTAC holding pattern (W, right turns, 075° inbound) to cross MZB VORTAC at or above 2000.

NOTE: Rwy9, trees 792' from departure end of runway, 142' left of centerline, 60' AGL/99' MSL. Antenna 740' from departure end of runway, 302' right of centerline, 62' AGL/82' MSL. Antenna 1946' from departure end of runway, 969' left of centerline, 126' AGL/192' MSL Trees 1377' from departure end of runway, 285' left of centerline, 80' AGL/135' MSL. Trees 4625' from departure end of runway, 1414' left of centerline, 250' AGL/385' MSL. Rwy 27, trees 1 mile from departure end of runway, 685' right of centerline, 220' AGL/253' MSL. Trees 3118' from departure end of runway, 846' right of centerline, 120' AGL/149' MSL. Flagpole 2511' from departure end of runway, 700' left of centerline, 90' AGL/ 116'MSL.

SAN DIEGO (EL CAJON), CA

GILLESPIE FIELD

TAKE-OFF MINIMUMS: Rwys 9L, 9R, 900-2 or std. with amin. climb of 1000' per NM to 1600. Rwy 17, 500-1 or std. with a min. climb of 260' per NM to 800.

Rwys 27L, 27R, CAT A,B 500-1 or std. with a min. climb of 370' per NM to 900. CAT C,D 2500-2 or std. with a min. climb of 370' per NM to 2500. Rwy 35,1300-2 or std. with a min. climb of 460' per NM to 1800.

DEPARTURE PROCEDURE: Rwy 9L, 9R, 27L, 27R, climbing right turn. Rwys 17, 35, climbing left turn. All aircraft climb via heading 165° and MZBR-076 to MZB VORTAC.

SAN LUIS OBISPO, CA

SAN LUIS COUNTY REGIONAL

TAKE-OFF MINIMUMS: Rwys 7, 25, NA. Rwy 11, 1800-2 or std. with a min. climb of 320' per NM to 2300. Rwy 29, 1200-2 or std. with a min. climb of 390' per NM to

DEPARTURE PROCEDURE: Rwy 11, climb runway heading to 900, then climbing right turn direct MQO VORTAC. Rwy 29, climb via runway heading and MQO R-050 to MQO VORTAC. All aircraft departing on MQO R-130 CW R-320 climb on course. All others $continue\, climbing\, in\, MQO\, holding\, pattern\,\, (SE, left$ turns, 306° inbound) to cross MQO VORTAC at or

SAN NICOLAS ISLAND NOLF (NSI)

SAN NICOLAS ISLAND, CA

Cross DER at or above 10' AGL/494' MSL. Diverse departures authorized between 300° CW to 120° from the ARP

TAKE-OFF OBSTACLES: Rwy 30: 8' AGL/492' MSL localizer antenna 48' from DER on centerline.

SANTA ANA, CA

JOHN WAYNE AIRPORT-ORANGE COUNTY DEPARTURE PROCEDURE: All runways climb runway heading to 700. Rwys 1L, 1R, turn left. Rwys 19L, 19R, turn right. All aircraft climb direct SLI VORTAC. Aircraft departing SLI R-040 CW R-345 climb on course. All others continue climbing via SLI R-171 southbound then climbing right turn direct SLI VORTAC to cross at or above 4600.

SANTA BARBARA, CA

SANTA BARBARA MUNI

TAKE-OFF MINIMUMS: Rwy 33L, 33R, NA DEPARTURE PROCEDURE: **Rwy 7**, turn right heading 170°. **Rwy 25**, turn left heading 155°. **Rwys 15L**, **15R**, climb runway heading. All aircraft climb via RZS R-185 to GOLET Int. Aircraft departing GOLET Int 050° CW 300° climb on course. All others continue climb in GOLET holding pattern (SE, right turns, 307° inbound) to cross GOLET Int at or above 2800, then climb on

SANTA MARIA, CA

SANTA MARIA PUBLIC/ CAPTAIN G. ALLAN HANCOCK FIELD

TAKE-OFF MINIMUMS: Rwy 12, CAT C,D 3400-2 or std. with a min. climb of 310' per NM to 3600. Rwy 20, CAT A,B 1300-2 or std. with a min. climb of 250' per NM to 1500; CAT C,D 1600-2 or std. with a min. climb of 250' per NM to 2100.

DEPARTURE PROCEDURE: Rwys 2, 12, climbing left turn. Rwy 20, climbing right turn. Rwy 30, climb via runway heading. All aircraft climb direct GLJ VOR. Continue climb via GLJ R-300 northwestbound to 2000, then continue climbing direct MQO VORTAC.

NOTE: 400' - 550' trees beginning 3/4 mile from departure end of Rwy 12.

SANTA MONICA, CA

SANTA MONICA MUNI

TAKE-OFF MINIMUMS: **Rwy 3,** 700-2 or std. with a min. climb of 290' per NM to 1000.

DEPARTURE PROCEDURE: Rwy 3, climb to 1000, then climbing right turn direct SMO VOR/DME. Proceed via SMO R-261 to SADDE Int. Rwy 21, climbing right turn to intercept SMO R-250 and FIM R-148 to SADDE Int. All aircraft continue climb on course.

SANTA YNEZ, CA

SANTA YNF7

TAKE-OFF MINIMUMS: Rwy 8, CAT C,D 1100-2 or std. with a min. climb of 280' per NM to 2000. DEPARTURE PROCEDURE: Rwy 8, turn left, climb to 6000 heading 260° and V27 to ORCUT Int. Rwy 26, climb to 6000 via RZS R-275 and V27 to ORCUT Int.





TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES



SHAFTER, CA

SHAFTER-MINTER FIELD

DEPARTURE PROCEDURE: Rwys 12, 16, turn right. Rwys 30,34, turn left. Climb westbound to 4000 via V248. Westboundaircraft continue at 4000 on course Eastbound aircraft turn right at 4000 direct EHF VORTAC WIE until UFN.

TORRANCE, CA

ZAMPERINI FIELD

TAKE-OFF MINIMUMS: Rwys 11L, 11R, 400-1 or std. with a min. climb of 325' per NM to 500.

DEPARTURE PROCEDURE: Rwys 29L, 29R, climb runway heading. Rwys 11L, 11R, climbing left turn to heading 290°. Both departures climb to 3000, intercept LAXR-170 to LIMBO Int.

TWENTYNINE PALMS, CA

TWENTYNINE PALMS

TAKE-OFF MINIMUMS: Rwy 17, NA. Rwys 8, 26, 35, std. with a min. climb of 280' per NM to 5500. DEPARTURE PROCEDURE: Rwys 8, 26, 35, turn right direct TNP VORTAC. Eastbound on V264 continue climb on course. All others climb in TNP holding pattern (E, left turns, 255° inbound) to cross TNP VORTAC at or above 6000 before proceeding on course. Northeast bound on V514-538 cross TNP VORTAC at or above 7900.

TWENTYNINE PALMS EAF (NXP)

TWENTYNINE PALMS, CA

Diverse departure not authorized

UPLAND, CA

CABLE

TAKE-OFF MINIMUMS: **Rwy 6,** 300-1 or std. with a min. climb of 240' per NM to 1900.

DEPARTURE PROCEDURE: Rwy 6, climbing right turn. Rwy 24, climbing left turn. All aircraft climb direct PDZ VORTAC. Aircraft departing PDZ R-091 CW R-140 and R-231 CW R-280 climb on course. All others continue climb in PDZ holding pattern (E, right turns, 258° inbound) to cross PDZ VORTAC at or above: R-281 CW R-090, 6700; R-141 CW R-230, 4000.

VAN NUYS, CA

VAN NUYS

TAKE-OFF MINIMUMS: Rwys 16L, 16R, 2500-2 or std. with a min. climb of 300' per NM to 3800.

Rwys 34L, 34R, 3300-2 or std. with a min. climb of 425' per NM to 4500.

DEPARTURE PROCEDURE: Rwys16L,16R, climbing left turn. Rwys 34L, 34R, climbing right turn.
All aircraft intercept VNY R-095 to DARTS Int. Aircraft eastbound via V186 and southeastbound via V459 climb on course. All others, continue climbing right turn direct VNY VOR/DME before proceeding on course.

VANDENBERG AFB (KVBG)

LOMPOC, CA

04078

Rwy 30: RADAR required. Climb on track 302° to 4000, then as instructed by LA Center before proceeding on course. CAUTION - Departure procedure enters uncontrolled airspace.

Rwy 12: RADAR required. Climb on track 116° to 6000, then as instructed by LA Center before proceeding on

TAKE-OFF OBSTACLES: Rwy 12, 107' trees 4551' from departure end of rwy, 1478' right of centerline.

VICTORVILLE, CA

SOUTHERN CALIFORNIA LOGISTICS

TAKE-OFF MINIMUMS: Rwy 3, 600-21/4 or std. with a min. climb of 280' per NM to 3500.

DEPARTURE PROCEDURE: Rwys 3,35, climbing left turn heading 220°. Rwys 17,21, climbing right turn heading 325°. All aircraft climb via VCV R-269 to ETHER Int. Aircraft departing ETHER Int 220° CW 120° climb on course. All others climb in ETHER Int. holding pattern (E, left turns, 247° inbound) to depart ETHER Int. atorabove 8500.

NOTE: Rwy 17, cross departure end of runway at or above 35' AGL /2912' MSL. Antenna 703' from departure end of runway, 203' left of centerline, 25' AGL/2902'





